UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,279	01/22/2002	Roy J. Byrd	YOR920010750US1	6772

7590 08/19/2005		EXAMINER	
Louis J. Percello		VO, HUYEN X	
Intellectual Property Law Dept.			
IBM Corporation		ART UNIT	PAPER NUMBER
P.O. Box 218		2655	
Yorktown Heights, NY 10598			

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td><td></td></tr>
<tr><td>10/055,279</td><td colspan="2">BYRD ET AL.</td></tr>
<tr><td></td><td>Examiner</td><td>Art Unit</td><td></td></tr>
<tr><td></td><td>Huyen X. Vo</td><td>2655</td><td></td></tr>
</table>

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _22 January 2002_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-22_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _22 January 2002_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 13 is objected to because of the following informalities: the phrase "an

output process the outputs" should be amended as "an output process that outputs".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claims 1 and 21-22 recite the limitation "*the candidate abbreviations*" in the first

limitation of the base claims 1 and 21-22. There is insufficient antecedent basis for this

limitation in the claims. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed
> publication in this or a foreign country or in public use or on sale in this country, more than one year prior to
> the date of application for patent in the United States.

5.   Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by

Malsheen et al. (US 5634084).

6.   Regarding claims 1 and 21-22, Malsheen et al. disclose a system and method for matching one or more abbreviations and one or more definitions, comprising: an abbreviation pattern generation process that generates one or more abbreviation patterns corresponding to candidate abbreviations (*col. 7, line 20 to col. 8, line 54*); and a definition pattern generation process that generates one or more definition patterns corresponding to the candidate definitions (*col. 7, line 20 to col. 8, line 54*).

7.   Regarding claim 2, Malsheen et al. further disclose a system, as in claim 1, further comprising: a set of abbreviation rules that correlate abbreviation patterns to definition patterns using one or more formation rules (*col. 7, line 63 to col. 8, line 24*); a lookup process that selects one or more formation rules, being selected formation rules, corresponding to the abbreviation pattern of the candidate abbreviation and the definition pattern of the candidate definition (*col. 7, line 63 to col. 8, line 24, by determining what's preceded the abbreviation*); and a rule application process that applies the selected formation rules to determine which candidate definitions match the candidate abbreviation (*col. 7, line 63 to col. 8, line 24*).

8.   Regarding claims 3-4, Malsheen et al. further disclose a system, as in claims 1 and 2 respectively, further comprising: one or more matching algorithms that match one or more pairs of abbreviations and definitions based on the abbreviation patterns and the definition patterns (*elements 132-152, abbreviation expansion algorithm, number expansion algorithm, acronym and initialism expansion algorithm*).

9.   Regarding claim 5, Malsheen et al. further disclose a system, as in claim 4, where rule application process and the matching algorithm apply both rule based and non-rule based matching processes to match one or more abbreviations and one or more definitions (*col. 8, line 1 to col. 9, line 67*).

10.   Regarding claims 6-7, Malsheen et al. further disclose a system, as in claim 1, further comprising: a method for specifying pairs, each of which contains a candidate abbreviation and a candidate definition, for each pair generating an abbreviation patterns and a definition pattern (*col. 8, line 1 to col. 9, line 67, after comparing with the contents of the abbreviation table 146, city-state table 147, and morph table 152, a match is identified or specified*), where the pairs an existing abbreviation database pair (*abbreviation table 146*).

11.   Regarding claims 8-12, Malsheen et al. further disclose a system, as in claim 1, further comprising: an abbreviation recognition process that finds one or more candidate abbreviations in text (*text classifier 136 and/or text expander 140 in figure 2*), a definition finding process that locates one or more candidate definitions corresponding to the candidate abbreviation (*element 146 includes abbreviations in association with corresponding definitions*), and a best match selection process that chooses a best candidate definition from the matched candidate definitions using one or more criteria (*col. 8, lines 1-54, using rules*), wherein a best match selection mechanism that employs

one or more weighting features (*col. 8, lines 1-54, weighting features being rules*), and

wherein the weighting features may rule priority of the formation rule that matched the

pair and/or capitalization of the definition (*col. 8, lines 1-54, weighting features being*

rules and col. 5, line 50 to col. 6, line 19, upper case and lower case letters).

12.   Regarding claim 13, Malsheen et al. further disclose a system, as in claim 1,

further comprising: an output process that outputs the candidate abbreviation and the

matched candidate definition as confirmed pairs (*output of the text expander 140*).

13.   Regarding claims 14-18, Malsheen et al. further disclose a system, as in claim 2,

where the formation rule that produced the best candidate definition is weighted better

due to the choice of the best candidate definition (*col. 8, lines 1-54, using rules*), and a

process for adding new abbreviation rules in the existing set of abbreviation rules

(*abbreviation table is just a memory slot storing abbreviations. Thus, adding or deleting*

abbreviations to or from memory is known to one of ordinary skill in the art), and a

mechanism for generating one or more new abbreviation rules when no formation rules

successfully match high-quality pairs of candidate abbreviations and definitions (*col. 8,*

lines 1-54, rules stored in abbreviation expansion procedure 148 can be update,since

the abbreviation expansion procedure is only a memory slot), and a process for

automatically adding the generated abbreviation rules to the existing set of abbreviation

rules (*col. 8, lines 1-54, rules are developed and installed into the system before the*

system could be fully functional), and a rule generation process for generating abbreviation rules from pairs of abbreviations and definitions (*col. 8, lines 1-54*).

14.   Regarding claims 19-20, Malsheen et al. further disclose a system, as in claim 1, further comprising: a set of layered matching algorithms which are based on the relationship between the lengths of abbreviation patterns and the lengths of definition patterns (*col. 8, lines 1-54, abbreviation is shorter than the definition*), and wherein each algorithm in the layered matching mechanism is applied in priority sequence (*col. 8, lines 1-54*).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sundaresan et al. (US 6385629), Nolan (US 5809500), and Kudrolli et al. (US 6279018) teach a method of expanding abbreviations. Thus, they are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
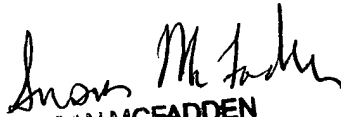
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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

HXV   8/4/2005

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SUSAN MCFADDEN
PRIMARY EXAMINER